



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,878	11/26/2003	Hiroshi Nakamoto	NAKA3010/EM	6011
23364	7590	05/31/2007	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			REDDING, DAVID A	
		ART UNIT	PAPER NUMBER	
		1744		
		MAIL DATE	DELIVERY MODE	
		05/31/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/721,878	NAKAMOTO ET AL.	
	Examiner	Art Unit	
	Terrence R. Till	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS; WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4 and 6-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) 12-14 and 18 is/are allowed.
- 6) Claim(s) 1-4, 7-11 and 15-17 is/are rejected.
- 7) Claim(s) 6 is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____ . | 6) <input type="checkbox"/> Other: ____ . |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 9, 10 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeda (US 3,591,888- cited previously).

3. The patent to Takeda et al. discloses an electric blower 2 mounted in an electric blower chamber 1 for generating a suction air stream; a dust collecting unit 9 in a dust collecting chamber 8 for collecting dirt particles contained in the suction airstream, and an air permeable dust removing unit 25' (See figure 2. See holes in figure 9A.) Located in the dust collecting chamber acting on the dust collecting part for removing dirt particles adhered to the dust collecting unit wherein the dust removing unit is disposed on a linear path in which the suction stream passes through the dust collecting unit into the electric blower, and allows the suction air stream to pass therethrough. Takeda et al. also disclose the electric blower chamber communicates with the dust collecting chamber through a communication hole (in plate 26), which is adjacent to the dust removing unit.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1744

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (US 3,591,888- cited previously).

7. Takeda discloses the claimed invention except for the dust removing unit has a plurality of air permeable openings of a grid shape. It would have been an obvious matter of engineering choice to modify Takeda to have the dust removing unit have a plurality of air permeable openings of a grid shape, since such a modification would have involved a mere change in the shape or form of a component. A change in shape or form is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1976). Whether the dust removing unit has a grid or a series of holes, the result is still the same; air is allowed to go through the dust removing unit.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (US 3,591,888- cited previously) in view of Kato (US 3,841,067- cited previously).

9. Takeda discloses all the recited subject matter with exception of the dust collecting part is made of a soft material. The patent to Kato discloses a dust collecting unit 32' in a dust

Art Unit: 1744

collecting chamber 20 for collecting dirt particles contained in the suction airstream. The dust collecting unit is made of a flat piece of filter sheet of a suitable fibrous material, for example filter paper- that is considered a “soft” material, and folded, like Takeda’s filter material 31 is folded. Therefore, because these two filter materials were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the filter material of Takeda for the soft filter material of Kato. Such a substitution is within the purview of one skilled in the art as a simple matter of mechanical equivalence.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (US 3,591,888- cited previously) in view of Murata et al. (JP 5-192278, cited previously).

11. Takeda discloses all the recited subject matter with exception of the dust collecting part has a polyhedral configuration when expanded by the suction air stream, and the dust removing unit removes dirt particles adhered to at least one surface of the dust collecting part. The patent to Murata et al. discloses a filter bag 10 acting as the dust collection part and has a polyhedral configuration when expanded by the suction air stream. Therefore, because these two types of filters were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the filter of Takeda for the bag filter of Murata et al. Such a substitution would then have a dust collecting part that has a polyhedral configuration when expanded by the suction air stream and such a substitution is within the purview of one skilled in the art as a simple matter of mechanical equivalence.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent to Murata et al. (JP 5-192278, cited in IDS- abstract only) in view of Steiner et al. (US 5,035,024).

Art Unit: 1744

13. The patent to Murata et al. discloses all the recited subject matter with exception of at least one portion of the main body being transparent or translucent. The patent to Steiner et al. discloses a hand-held vacuum in which the dust collection unit 7 is made of a transparent plastic resin. It would have been obvious to a person skilled in the art to modify the main body (canister) of Murata et al. to be transparent so that the user can see the amount of debris collected by the vacuum cleaner (see Steiner et al., column 5, lines 40-45).

Allowable Subject Matter

14. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter: With respect to claim 6, the closes prior art, to Takeda, discloses members 29' acting on the dust collecting unit, but clearly these are not detachably connected. Nor would it be obvious to modify these to be detachably connected, as it would require impermissible hindsight.

16. Claims 12-14 and 18 remain allowed.

Response to Arguments

17. Applicant's arguments filed 3/6/07 have been fully considered but they are not persuasive.

18. Applicant's representative has amended independent claims 1 and 2 and obviated the rejection under 35 USC 102 over Murata et al. and Kato et al. However, The rejection of independent claims 1 and 2 still stand over Takeda. With respect to the rejection over Takeda, applicant's representative argues that “[t]he Takeda patent fails to disclose the suction air stream

following a linear path and a dust removing unit disposed on a linear path of the suction air stream, and that allows the suction air stream to pass therethrough... In contrast, the embodiment of the Takeda patent that the rejection relies upon discloses a structure that inherently increases the turbulence of the suction air stream, and thus adversely affects the suction of the vacuum cleaner of the Takeda patent.”

19. It is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). If one looks at the language of claims 1 and 2, all that is mentioned is that “the suction air stream passing through the dust collecting unit into the electric blower flows in an *approximately* (emph. examiner) linear path” and “the dust removing unit is disposed on a linear path in which the suction stream passes through the dust collecting unit into the electric blower, and allows the suction air stream to pass therethrough”. Takeda does allow the air to pass through. The distinction of the air being turbulent (or not turbulent) is not mentioned in the claim. Applicant’s representative also argues that “[t]he size of these passageways is much smaller, relatively speaking, than the size of the suction air stream. Thus, the suction air stream must rotate, spin, and curve around in order to pass through the unlabeled passageways. Thus, the suction air stream does not follow a linear path through the vacuum cleaner, as required by amended claims 1 and 2, but instead follow a tortuous path. Such a tortuous path actually increases the amount and effect of turbulence on the suction air stream, as opposed to reducing the effect of turbulence on the suction air stream, as required by amended claims 1 and 2”. The size of the passages is not claimed. The tortuous (or non-tortuous) path is

Art Unit: 1744

not claimed; only that the dust removing unit is disposed on a linear path. The examiner interprets this to mean that the dust removing unit is aligned with the flow of air from the inlet to the dust collecting chamber to the motor fan inlet, which it is.

20. With respect to claim 11, and applicant's arguments, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation was expressly cited (Steiner et al., column 5, lines 40-45) as a reason to have a transparent main body. With respect to applicant's representatives assertion that the nozzle/debris container 7 of Steiner forms the dust collecting unit, and is not the main body, or that Murata uses a bag and Steiner does not, applicant's representative's arguments are against the references individually, and one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Contrary to what applicant's representative states, it is the examiner's opinion that one skilled in the art would be able to tell whether the bag was full or not when the vacuum was turned off; the bag would substantially deflate when not full and would not deflate when full.

21. Lastly, with respect to applicant's representative's argument that there is no reasonable expectation of success, applicant cites not case law; nor any evidence that there was no

Art Unit: 1744

reasonable expectation of success. See MPEP 2143.02. It is the examiner's opinion that he has laid out a Prima Facie case of obviousness for claim 11.

Conclusion

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

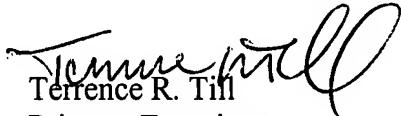
23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The EPO publication to Matsushita is cited as being pertinent to the application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrence R. Till whose telephone number is (571) 272-1280. The examiner can normally be reached on Mon. through Thurs. and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys P. Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Terrence R. Till
Primary Examiner
Art Unit 1744

trt